TEJUS
CONSULTANTS

TEST REPORT

Client:	BRUHAT BENGALORE MAHANAGARA PALIKE
Project:	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. S. K Keshavamurthy

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	**Proposed Use**	concrete
Location/Source	At Site/Plant	**Date of Sampling**	01-02-2019
Period of Soaking	24 hours	**Date of Testing**	01-02-2019

Sl.No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.		648	679	658	
B	Weight of oven - dry sample gm.		641	672	648	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1682	1701	1690	
E	Bulk specific gravity	$\frac{B}{(C+A-D)}$	2.660	2.656	2.667	**2.661**
G	Absorption (%)	$\frac{(A-B)*100}{B}$	1.092	1.042	1.543	**1.226**

Notes:

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Test Report on Cement

Project:	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Client:	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. S. K Keshavamurthy
Sample ID	Cement
Date of Sample Tested	01-02-2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	37 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	346 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	2mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	29.00%	25 % to 35

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GRADATION FOR WMM
(As per MORT&H 400-11)

Name of Work	:	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Client	:	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	:	M/s Tejus Consultants
Contractor	:	Sri. S. K Keshavamurthy
Date of Testing	:	18-02-2019
Type of Mix	:	WBM
Sample ID	:	WBM 1

Sample Location:	At plant	**Date of Sampling:**	18-02-2019
Type of material & Purpose:	WBM	**Date of testing:**	18-02-2019
		Oven Dry Wt.(gms):	10000.0

Sieve size in mm	Weight retained (gm)	Cummulative weight retained (gm)	Cummulative % of retained	Cummulative % of passing	Specification limits
53	0	0	0.00	100.00	100.00
45	620	620	6.20	93.80	95-100
22.4	2465	3085	30.85	69.15	60-80
11.2	1825	4910	49.10	50.90	40-60
4.75	1440	6350	63.50	36.50	25-40
2.36	1361	7711	77.11	22.89	15-30
0.6	798	8509	85.09	14.91	8.0-22.0
0.075	845	9354	93.54	6.46	0-8
Pan	646				
Total	10000				

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AGGREGATE IMPACT VALUE
(IS: 2386 Part - 4)

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Project:	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05		
Client:	BRUHAT BANGALORE MAHANAGARA PALIKE		
Consultant:	M/s Tejus Consultants		
Contractor:	Sri. S. K Keshavamurthy		
Proposed for:	WBM	**Date of Sampling**	**18-02-2019**
Sample position:	**At plant**	**Date of Testing**	**18-02-2019**

Description		Test No. 1	Test No. 2	Test No. 3	Spec Limit (%)
Wt. of stone pieces (dry) passing IS Sieve 12.5mm but retained in IS sieve 10mm (gm)	(Wa)	358.00	347.00	356.00	
Wt. of the fraction retained in IS sieve 2.36mm after the impact test (gm)	(Wb)	272.00	269.00	276.00	
Wt. of the fraction passed in IS sieve 2.36mm after the impact test (gm)	(Wc)	86.00	78.00	80.00	
Aggregate Impact Value (%)	(Wc/Wa)* 100	24.02	22.48	22.47	
Average Aggregate impact value	(%)	22.99			Max - 30 %

Remarks: ✓ Satisfactory / Not Satisfactory

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FLAKINESS AND ELONGATION INDICES (IS 2386, PART 1)

Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Client	BRUHAT BANGALORE MAHANAGARA PALIKE
Consultant	M/s Tejus Consultants
Contractor	Sri. S. K Kesahavamurthy

Type of Material	WBM	**Proposed Use**	WBM
Sample Location	At plant	**Date of Sampling**	18-02-2019
		Date of Testing	18-02-2019

Size of aggregate		Flakiness Index		Elongation Index	
Passing through IS sieve, mm	Retained on IS sieve, mm	Total wt. of aggregate retained on sieves (A) gms.	Wt. of aggregate passing from Flakiness gauge (B) gms	Wt. of aggregate retained on Flakiness gauge (C) gms	Wt. of aggregate retained on Elongation gauge after retained on Flakiness gauge(D)gms
63.0	50.0	0	0	0	0
50.0	40.0	0	0	0	0
40.0	31.5	0	0	0	0
31.5	25.0	0	0	0	0
25.0	20.0	0	0	0	0
20.0	16.0	850	75	775	54
16.0	12.5	1206	118	1088	121
12.5	10.0	453	75	378	61
10.0	6.3	500	69	431	42
Total		**3009**	**337**	**2672**	**278**

Note: Minimum 200 Pcs should be taken on each fraction of test

Flakiness Index(%):	11.20
Elongation Index(%):	10.40
Combined FI+EL (%)	21.60

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project:	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor:	Sri. S. K Keshavamurthy
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	11-03-2019	18-03-2019	7 days	8.122	22500	210	9.33	9.21
2	11-03-2019	18-03-2019	7 days	8.146	22500	208	9.24	
3	11-03-2019	18-03-2019	7 days	8.142	22500	204	9.07	

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TEST REPORT ON COMPRESSIVE STRENGTH OF CONCRETE CUBES

Project:	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Client:	Bruhat Bangalore Mahanagar Palike
Consultant:	TEJUS CONSULTANTS
Contractor	Sri. S. K Keshavamurthy
Grade of concrete:	M15
Size of cube:	150x150x150 mm
Reference IS code:	IS:516-1959

Sl.No.	Date of Casting	Date of testing	Age of Test	Weight of Cube	Area of Cube	Failure load	Compressive strength	Avg. Compressive strength
				Kg	mm^2	KN	N/mm^2	N/mm^2
1	11-03-2019	08-04-2019	28 days	8.136	22500	340	15.11	15.16
2	11-03-2019	08-04-2019	28 days	8.142	22500	342	15.20	
3	11-03-2019	08-04-2019	28 days	8.148	22500	341	15.16	

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike				
Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05				
Consultants	TEJUS CONSULTANTS				
Contractor	Sri. S. K. Keshavamurthy				
Total Weight:	10000	gms			

SIEVE ANALYSIS

Type of Material	12.5 mm down size		Proposed Use	CONCRETE	
Sample Location	At Site/Plant		Date of Sampling	11-03-2019	
			Date of Testing	11-03-2019	
IS Sieve Size (in mm)	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
20.0	0	0	0	100	100
12.5	556	556	5.56	94.44	90-100
10.0	4672	5228	52.28	47.72	40-85
4.75	4532	9760	97.60	2.40	0-10
Pan	240	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike	
Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05	
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore	
Contractor	Sri. S. K Keshavamurthy	
Total Weight:	10000	gms

SIEVE ANALYSIS

Type of Material	20 mm down size	Proposed Use	Concrete
Sample Location	Plant/At site	Date of Sampling	11-03-2019
		Date of Testing	11-03-2019

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing
40.00 mm	0	0	0	100	100
20.00 mm	265	265	2.65	97.35	95 - 100
10.00 mm	4830	5095	50.95	49.05	25 - 55
4.75 mm	4221	9316	93.16	6.84	0 - 10
Pan	684	10000			

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Consultants	Tejus Consultants, Bangalore
Contractor	Sri. S. K Keshavamurthy

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	11-03-2019
		Date of Testing	11-03-2019

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	208	208	6.93	93.07	90 - 100
2.36 mm	302	510	17.00	83.00	75 - 100
1.18 mm	402	912	30.40	69.60	55 - 90
0.600 mm	482	1394	46.47	53.53	35 -59
0.300 mm	760	2154	71.80	28.20	8-30
0.150 mm	638	2792	93.07	6.93	0 - 10
Pan	208	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALORE MAHANAGARA PALIKE
Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. S. K Keshavamurthy

SPECIFIC GRAVITY AND WATER ABSORPTION

FINE AGGREGATE (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Location/Source	At Site/Plant	Date of Sampling	11-03-2019
Period of Soaking	24 hours	Date of Testing	11-03-2019

Sl. No.	Test Property	TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of sturated surface dry sample gm.	648	678	658	
B	Weight of oven - dry sample gm.	641	670	648	
C	Weight of Pycnometer Filled with water gm	1275	1275	1275	
D	Weight of Pycnometer + sample + water gm	1682	1701	1690	
E	Bulk specific gravity $\frac{B}{(C+A-D)}$	2.660	2.659	2.667	**2.662**
G	Absorption (%) $\frac{(A-B)*100}{B}$	1.092	1.194	1.543	**1.276**

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Test Report on Cement

Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. S. K Keshavamurthy
Sample ID	Cement
Date of Sample Tested	11-03-2019
Sample Supplied By	Agency

Sl.No.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	35Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	340 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	3mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	26.00%	25 % to 35

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TEST REPORT

Clients	Bruhath Bangalore Mahanagara Palike
Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. S. K Keshavamurthy
Total Weight in gms	3000

SIEVE ANALYSIS

Type of Material	40 mm down size	**Proposed Use**	PCC
Sample Location	At Site/Plant	**Date of Sampling**	11-03-2019
		Date of Testing	11-03-2019

IS Sieve Size	Weight Retained in gm	Cum. Weight Retained in gm	Cumulative Weight Retained in %	Cumulative Weight Passing in %	Specific Limits as per IS 383-1970 (RA-2007) % of Passing For Graded Aggregate of Nominal Size
80.00mm	0	0	0.00	100.00	100
63.00mm	0	0	0.00	100.00	-
40.00mm	82	82	2.73	97.27	95-100
20.00mm	1380	1462	48.73	51.27	30-70
10.00mm	975	2437	81.23	18.77	10-35
4.75mm	450	2887	96.23	3.77	0-5
Pan	113	3000	100.00	0.00	

Remarks : Satisfactory / Not Satisfactory

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TEST REPORT

Clients	Bruhat Bangalore Mahanagara Palike
Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Consultants	Tejus Consultants, Bangalore
Contractor	Sri. S. K Keshavamurthy

SIEVE ANALYSIS

Total Weight:	3000 gms		
Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	concrete
Sample Location	At Site/Plant	Date of Sampling	11-03-2019
		Date of Testing	11-03-2019

IS Sieve Size	Weight Retained	Cum. Weight Retained	Cum. % Retained	Cum. % Passing	Spec. Limit (%) Passing (Zone-II)
10.00 mm	0	0	0	100.00	100
4.75 mm	215	215	7.17	92.83	90 - 100
2.36 mm	320	535	17.83	82.17	75 - 100
1.18 mm	415	950	31.67	68.33	55 - 90
600 mm	488	1438	47.93	52.07	35 -59
300 mm	755	2193	73.10	26.90	8-30
150 mm	615	2808	93.60	6.40	0 - 10
Pan	192	3000			-

Remarks : ✓ Satisfactory / Not Satisfactory

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TEST REPORT

Clients	BRUHAT BENGALURU MAHANAGARA PALIKE
Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Consultants	TEJUS CONSULTANTS Basaveshwar Nagar Bangalore
Contractor	Sri. S. K. Krishnamurthy

SPECIFIC GRAVITY AND WATER ABSORPTION

SPECIFIC GRAVITY (IS-2386-PART-3)

Type of Material	Fine aggregate (River Sand/ M sand)	Proposed Use	PCC
Location/Source	At Site/Plant	Date of Sampling	11-03-2019
Period of Sampling	24 hours	Date of Testing	11-03-2019

Sl. No.	Test Property		TRIAL - 1	TRIAL - 2	TRIAL - 3	
A	Weight of saturated surface dry sample gm.		660	640	671	
B	Weight of oven dry sample gm.		652	630	661	
C	Weight of Pycnometer Filled with water gm		1275	1275	1275	
D	Weight of Pycnometer + sample + water gm		1689	1679	1698	
E	Bulk specific gravity	B / (C+A-D)	2.650	2.669	2.665	2.662
F	Absorption (%)	(A-B)*100 / B	1.227	1.587	1.513	1.442

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Test Report on Cement

Project	Providing and fixing Chainlink Fencing to abandoned Kogilu Quarry in ward no. 05
Client	Bruhat Bangalore Mahanagar Palike
Consultant	TEJUS CONSULTANTS
Contractor	Sri. S. K Keshavamurthy
Sample ID	Cement
Date of Sample Tested	11-03-2019
Sample Supplied By	Agency

SLNo.	Descriptions	Test Method as per IS	Test Result	Requirements as per IS: 12269-1987
1	a) Initial Setting Time	IS-4031 (Part-5)	37 Minutes	Not Less than 30 Minutes
	b) Final Setting Time	IS-4031 (Part-5)	360 Minutes	Not More than 600 Minutes
2	Soundness	IS-4031 (Part-3) By the Le-Chatelier method	4mm	Not More than 10 mm
3	Standard Consistency	IS-4031 (Part-4)	28.00%	25 % to 35

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